

Title (en)
AZO DYE

Title (de)
AZOFARBSTOFF

Title (fr)
COLORANT AZOÏQUE

Publication
EP 1772493 A4 20100922 (EN)

Application
EP 05757850 A 20050629

Priority

- JP 2005012431 W 20050629
- JP 2004194866 A 20040630
- JP 2004277895 A 20040924

Abstract (en)
[origin: EP1772493A1] An azo dye represented by the following formula (I): wherein, in formula (I), R 1 , R 2 , R 3 , and R 4 each independently represent a hydrogen atom, an aliphatic group, an aryl group, a halogen atom, an acyl group, a cyano group, an acylamino group, an aliphatic oxycarbonyl group, an aryloxy carbonyl group, a carbamoyl group, an aliphatic sulfonyl group, an arylsulfonyl group, a sulfamoyl group, an aliphatic oxycarbonylamino group, an aryloxy carbonylamino group, a sulfo group, a carboxyl group, a carbamoylamino group, a sulfamoylamino group, or an aliphatic-or aromatic-sulfonylamino group, wherein R 1 and R 2 and/or R 3 and R 4 may be combined with each other to form a five- or six-membered aromatic ring or non-aromatic ring; X represents a carbon atom or a nitrogen atom, wherein n is 0 when X is a nitrogen atom and n is 1 when X is a carbon atom; A, B, C, and D each represent a carbon atom or a nitrogen atom, provided that at least one of A, B, C and D represents a nitrogen atom; Y represents a substituent; and m denotes an integer from 0 to 3.

IPC 8 full level
C07D 513/04 (2006.01); **C09B 29/039** (2006.01); **C09B 29/12** (2006.01); **C09B 29/26** (2006.01); **C09B 29/42** (2006.01)

CPC (source: EP US)
C07D 513/04 (2013.01 - EP US); **C09B 29/0081** (2013.01 - EP US); **C09B 29/12** (2013.01 - EP US); **C09B 29/26** (2013.01 - EP US)

Citation (search report)

- [XD] US 4524124 A 19850618 - BERGTHALLER PETER [DE], et al
- [X] DE 2354686 A1 19750515 - BASF AG
- [I] US 5091517 A 19920225 - NAEF RUDOLF [CH]
- [I] DE 4213395 A1 19921029 - CIBA GEIGY AG [CH]
- [XP] EP 1529816 A1 20050511 - FUJI PHOTO FILM CO LTD [JP]
- [L] EP 1849454 A1 20071031 - KAO CORP [JP], et al
- See references of WO 2006004134A1

Cited by
EP1849454A4

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1772493 A1 20070411; **EP 1772493 A4 20100922**; **EP 1772493 B1 20160720**; US 2008027221 A1 20080131; US 2011124849 A1 20110526; US 2011130552 A1 20110602; US 7947815 B2 20110524; WO 2006004134 A1 20060112

DOCDB simple family (application)
EP 05757850 A 20050629; JP 2005012431 W 20050629; US 201113022495 A 20110207; US 201113022520 A 20110207; US 63118805 A 20050629